

ABSTRACT

The present invention provides a particle size distribution measuring apparatus in which the sample solution circulates fluently in the flow cell which may be easily detached without spilling the sample solution, thereby permitting the flow cell to be washed easily and surely. In addition, the present invention provides a particle size distribution measuring apparatus capable of enhancing the degree of measuring accuracy irrespective of a diameter of a tube forming the flow path.

The particle size distribution measuring apparatus of the present invention comprises an irradiating part which irradiates laser light to a flow cell provided in a flow path through which a sample solution flows and a detector for detecting light from the irradiating part, scattered by particles in the sample solution, wherein the flow cell is provided with two ports to be an inlet and an outlet of the sample solution on a top surface of the cell, and wherein a separating element is provided from a position between the two ports of the flow cell in a downward direction in such a way that the sample solution introduced from either one of the two ports into the flow cell is guided out of another port through the vicinity of the flow cell bottom and a lower section of the separating element has an inclined surface so as to decrease in width toward a bottom end.

In another embodiment, a particle size distribution measuring apparatus is provided having a pump for circulating a sample solution and a flow cell in the flow path through which the sample solution circulates and having an irradiating part which irradiates laser light to the flow cell and a detector for detecting light from the irradiating part, scattered by particles in the sample solution contained in the flow cell, wherein a sample solution circulation system is constructed so as to reverse the flow direction of the sample solution which flows through the flow cell prior to measurement of the particle size distribution performed by irradiating laser light to the flow cell from the irradiating part.